DEPARTMENT OF THE NAVY
NAVAL DENTAL CENTER SOUTHWEST
2310 CRAVEN ST.
SAN DIEGO, CALIFORNIA 92136-5596

NDCSWINST 6700.1F
02MMD
8 Oct 02

NAVDENCEN SOUTHWEST INSRUCTION 6700.1F

Subj: DENTAL EQUIPMENT MAINTENACE AND REPAIR PROGRAM

Ref: (a) NAVMED P-5132

Encl: (1) Dental Repair Support
(2) Operator Preventive Maintenance of Dental Equipment
(3) Minor Maintenance Petty Officer Description

1. Purpose. To establish policy and coordinate repair services offered by Dental Equipment Maintenance and Repair Division (DEMRD) with all elements of Naval Dental Center Southwest and elements of the operating forces.

2. Cancellation. NDCINST 6700.1E.

3. Objectives. To establish a viable program throughout Naval Dental Center Southwest providing preventive maintenance and repair of dental equipment, reducing expenditures, standardizing equipment, ensuring planning for equipment modernization programs, and to develop, train, and maintain a work force to meet these objectives.

4. Responsibilities

a. The Dental Equipment Maintenance and Repair Division (DEMRD) under the Head, Materiel Management, will provide complete dental equipment maintenance and repair to branch clinics within the Command and to the operating force.

b. Branch Directors shall implement preventive maintenance and repair programs in liaison with DEMRD and in accordance with reference (a). A Maintenance Petty Officer (MPO) shall be designated in writing to Head, Materiel Management Department by Branch Directors to accomplish minor repairs and coordinate the preventive maintenance and repair program at the branch/annex clinic levels.

5. Operation

a. General. The operation of the DEMRD is a function of Command authority. In addition to accomplishing essential repairs, DEMRD will establish and administer preventive maintenance and equipment procurement assistance programs.

b. Repairs. Repairs will be accomplished by Dental Equipment Repair Technician (DERT) as stated in enclosure (1).

c. Preventive Maintenance. Preventive maintenance, enclosure (2), is the systematic care, servicing, and inspection for the detection and correction if incipient failures before they develop into major defects.

(1) Daily operator maintenance will be conducted by the MPO as described in enclosure (2).

(2) DERTs will inspect for preventive maintenance as specified by reference (a).

(3) Lectures, demonstrations, and indoctrination will be scheduled by the MPO with DEMRD preventive maintenance representation as needed.

d. New Equipment Procurement. Prior to submission of a requisition for new equipment, the DEMRD will be consulted for recommendations and technical assistance.

e. Repair Limitations. Cost effectiveness of this program is dependent on what is or is not repaired. Considerations for repair will include age, useful life, cost, availability of replacement parts and records of past repair history.

f. Work Control. The work control and priority system, enclosure (3) ensure the immediate repair of critical equipment and allow scheduling of major repairs as follows:

(1) DEMRD preventive maintenance measures and programs will be disseminated by an assigned preventive maintenance officer. The programs will be implemented in conjunction with clinical supervisors and the LPO/MPO will ensure daily user maintenance.

(2) A repair logbook will be established and maintained at each dental treatment facility. This log will ensure a track record for all repair requests. The Maintenance Petty Officer will be the responsible custodian for this log.

(a) An entry will be made for each repair call entered into the command's help desk.

(b) Repair Division personnel will initial and make any remarks as to status, etc. and date onboard.

(c) Each page should be numbered and divided into six columns as described below:

DATE WORK ORDER # RM# PROBLEM REPAIR INITIALS REMARKS

(3) Instances of unsatisfactory service will be reported to the LPO DEMRD.

J. W. KIRBY

Dist:
List 1, Case 1, 3

DENTAL REPAIR SUPPORT

1. Repairs that require assistance of a DERT are entered into the Command's Help Desk by the clinic's MPO. MPOs may physically bring broken equipment to the DEMRD accompanied by Medical/Dental Maintenance work order, NAVMED 6700/4. Upon receipt of repair calls by DEMRD, a DERT will visit the respective clinic to assess the status of the equipment. Repair of the equipment is initiated on site as time and availability of parts permit.

2. Emergency trouble calls that cause loss of Dental Operating Room (DOR) capabilities will be entered into the Command's Help Desk by the clinic's MPO. A DERT will visit the respective clinic and repair the equipment as soon as time and parts availability permit. However, in cases where the equipment is vital to prevent the loss of DOR capabilities, DEMRD will issue a similar equipment as a loaner to the respective clinic.

3. Major repair work will be coordinated by the DEMRD and respective clinics in the most efficient and effective manner in order to prevent patient care downtime.

4. The DEMRD is responsible for providing training to MPOs. DERMD will contact clinic MPOs to coordinate training.

OPERATOR PREVENTIVE MAINTENANCE OF DENTAL EQUIPMENT

1. The equipment operator and the dental equipment repairman equally share the responsibility for the success, or failure of the Preventive Maintenance and Equipment Operator Program. Each individual must perform his required duties to insure the most economical and efficient use of medical/dental equipment. Preventive Maintenance and Equipment Operator Program includes both visual inspections and servicing. It is a comprehensive approach to the total maintenance concept.

a. Services and Limitations. There are certain simple but important services which are essential to keep equipment operating properly, e.g., replacement of light bulbs, batteries, rubber tubing, and the tightening of nuts, bolts, and screws when necessary. The equipment operator should not attempt repairs beyond those authorized as part of operating techniques. The performance of routine cleaning and dusting of equipment should receive high priority because it accomplishes two significant missions:

(1) Reduces corrosion and obstructions to moving components.

(2) Manifests a notable efficiency of equipment and operator by its appearance. This, in turn, instills patient confidence in the health care being provided by the dental treatment facility, an inherent element of effective dental treatment.

b. Equipment Operator Maintenance. The preventive maintenance actions of the equipment operator are critical to the overall Preventive Maintenance Program. Due to the frequent contact with the equipment, the operator is in the best position to detect problems as they may occur. Proper use and care will prolong equipment life, reduce costly repairs, and provide more dependable operation; therefore, the equipment operator must know dependable operation; therefore, the equipment operator must know correct techniques of operation and preventive maintenance procedures to include the following:

(1) Proper operating characteristics of dental treatment equipment.

(a) Dental Units Daily

1 Flush saliva ejector hose with fresh water after each patient and at end of the day.
2 Flush high volume evacuator and saliva ejector.
3 Empty and clean amalgam trap for high volume evacuator saliva ejector.
4 Empty water bottle(s) and dry all water lines with purge air at the end of each work day.
5 Secure main/off switch.

(b) Weekly

1 Dust entire unit with soft clean dry cloth.

2 At the end of the week flush unit water lines with approved disinfectant and rinse with water for 30 seconds and dry all water lines with purge air.

(c) Monthly

1 Use any non-abrasive wax and soft cloth for polishing unit. Auto polish is best.

2 Polish only stainless parts with suitable metal polisher.

(2) Air Driven Handpieces

(a) Daily

1 Clean and lubricate as directed as directed in NDCSWINST 6700.2C.

(3) Dental Operating Light

(a) Weekly

1 Remove and clean plastic cover with mild soap and water. Dry well and replace.

(b) Monthly

1 With light head completely cool, clean inside surface of reflector with clean damp cloth. Dry well.

(4) Autoclave (Not to include Chemiclave)

(a) Daily

1 Check water level and fill with distilled water only as needed.

2 Check printer for sterilization parameters.

(b) Weekly

1 Run cleaning cycle with approved cleaner.

2 Drain water reservoir and refill with tap water. Run rinse cycle.

3 Drain water reservoir and refill with distilled water.

(c) Monthly

1 Remove and clean trays and polish metal parts.

2 Inspect filter if applicable.

(5) Dental Chair

(a) Daily

1 Wipe off upholstery with damp cloth.

(b) Weekly

1 Clean upholstery with mild soap solution and warm water. Wipe dry.

(6) Lab Handpieces

(a) Daily

1 Clean and lubricate as directed in manufacturer's instructions.

(7) Curing Unit

(a) Weekly

1 Drain tank, wire brush metal plate, fill with clean water.

(8) Shell and Sand Blaster

(a) Weekly

1 Remove and strain abrasive material. Add new if needed.

(b) Monthly

1 Empty and replace filter bag, check rubber gloves for wear.

(9) Lathes and Polishing Machines

(a) Daily

1 Remove all burs at the end of the day. Never close chuck without bur in place.

(b) Weekly

1 Check drive belts for wear.

2 Remove chucks from high-speed lathes. Clean and replace.

(c) Monthly

1 Lubricate motor (2) drops of oil at each bearing.

2 Using air gun, blow out inside motor and light housing.

(10) Model Trimmer

(a) Daily

1 Never use wheel dry. Secure water at the end of the day.

(b) Weekly

1 Inspect wheel for wear/breakage.

(c) Monthly

1 Lubricate 2 drops of oil at each bearing.

(11) Ticomatic

(a) Daily

1 Clean casting well of all debris.

(b) Weekly

1 Lubricate heat coil rods with rag dipped in molybdenum.

2 Lubricate main bearing shaft 4 drops of oil in oil hole.

(c) Monthly

1 Lubricate crucible holder slides with rag dipped in molybdenum.

(12) Burn Out Furnaces

(a) Daily

1 Keep inside clean of old investment.

(b) Weekly

1 Inspect muffle for cracks. Inspect the thermocouple lead for breakage,

(c) Monthly

1 Test meter for accuracy. If incorrect recalibrate.

(13) Vacuum Porcelain Ovens

(a) Daily

1 Keep inside clean of debris. Keep oven at 400 degrees overnight.

(b) Weekly

1 Inspect muffle for cracks/breaks. Repair with cement if needed.

(c) Monthly

1 Test meter for accuracy. If incorrect, recalibrate.

(14) Air Compressor

(a) Daily

1 Drain air receiver tank.

2 Secure nightly.

(15) Central Suction

(a) Daily

1 Visually check for signs of effluence in turbine. If present notify DERMD immediately.

2 Secure nightly

(2) Basic preventive maintenance procedures.

(a) Before Operation Maintenance. To assure that the equipment is ready for use, the operator should determine the adequacy of accessories and supplies. Defects such as frayed cords, cracked connectors, or broken glass should be detected and reported to the LPO/MPO for correction. It is important to determine that equipment can be used safely and can be reasonably expected to function when placed into operation.

(b) During Operation Maintenance. During operation of the equipment, the operator should be alert to situations which may damage equipment or injure personnel. The operator should investigate and report to the dental equipment repairman abnormalities indicated by erratic meter responses, electrical flashing or arcing, unusual grinding sounds or other evidence of improper operation. Unusual odors, noises or heat require investigation. The equipment operator should be familiar with the normal equipment sounds so that he/she may detect abnormalities.

(c) After Operation Maintenance. After operation maintenance includes procedures of good housekeeping. Equipment and accessories must be cleaned. Stains, solutions, powder deposits, and rust should be removed. Some accessories require sterilization. Batteries should be checked and recharged or replaced as necessary. Fluid levels may require reduction to remove stress on gaskets or diaphrams. Switches must be turned off and line cords disconnected and stored. Following the after operation maintenance, the equipment should be properly stored and protected.

OPERATOR PREVENTIVE MAINTENANCE OF DENTAL EQUIPMENT

1. Dental Units

   a. Daily

      (1) Flush saliva ejector hose with fresh water after each patient and at end of the day.

      (2) Flush high volume evacuator and saliva ejector.

      (3) Empty and clean amalgam trap for high volume evacuator and saliva ejector.

      (4) Empty water bottle(s) and dry all water lines with purge air at the end of each work day.

      (5) Secure main on/off switch.

   b. Weekly

      (1) Dust entire unit with soft clean dry cloth

      (2) At the end of the week flush unit water lines with approved disinfectant and rinse with water for 30 seconds and dry all water lines with purge air..

   c. Monthly

      (1) Use any non-abrasive wax and soft cloth for polishing unit. Auto polish is best.

      (2) Polish only stainless parts with suitable metal polisher.

2. Air Driven Handpieces

   a. Daily

      (1) Clean and lubricate as directed as directed in NDCSWINST 6700.2C.

3. Dental Operating Light

   a. Weekly

      (1) Remove and clean plastic cover with mild soap and water. Dry well and replace.

   b. Monthly

      (1) With light head completely cool, clean inside surface of reflector with clean damp cloth. Dry well.

4. Autoclave (Not to include Chemiclave)

   a. Daily

      (1) Check water level and fill with distilled water only as needed.

      (2) Check printer for sterilization parameters.

   b. Weekly

      (1) Run cleaning cycle with approved cleaner.

      (2) Drain water reservoir and refill with tap water. Run rinse cycle.

      (3) Drain water reservoir and refill with distilled water.

   c. Monthly

      (1) Remove and clean trays and polish metal parts.

      (2) Inspect filter if applicable.

5. Dental Chair

   a. Daily

      (1) Wipe off upholstery with damp cloth.

   b. Weekly

      (1) Clean upholstery with mild soap solution and warm water. Wipe dry.

6. Lab Handpieces

   a. Daily

      (1) Clean and lubricate as directed in manufacturer's instructions.

Preventive Maintenance of Dental Equipment

1. Lab Handpieces

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   a. Weekly

      (1) Drain tank, wire brush metal plate, fill with clean water.

3. Shell and Sand Blaster

   a. Weekly

      (1) Remove and strain abrasive material. Add new if needed.

   b. Monthly

      (1) Empty and replace filter bag, check rubber gloves for wear.

4. Lathes and Polishing Machines

   a. Daily

      (1) Remove all burs at end of day. Never close chuck without bur in place.

   b. Weekly

      (1) Check drive belts for wear.

      (2) Remove chucks from high-speed lathes. Clean and replace.

   c. Monthly

      (1) Lubricate motor (2) drops of oil at each bearing.

      (2) Using air gun, blow out inside motor and light housing.

5. Model Trimmer

   a. Daily

      (1) (Never use wheel dry.) Secure water at the end of the day.

   b. Weekly

      (1) Inspect wheel for wear/breakage.

   c. Monthly

      (1) Lubricate motor 2 drops of oil at each bearing.

6. Ticomatic

   a. Daily

      (1) Clean casting well of all debris.

   b. Weekly

      (1) Lubricate heat coil rods with rag dipped in molybdenum.

      (2) Lubricate main bearing shaft 4 drops of oil in oil hole

   c. Monthly

      (1) Lubricate crucible holder slides with rag dipped in molybdenum.

7. Burn Out Furnaces

   a. Daily

      (1) Keep inside clean of old investment.

   b. Weekly

      (1) Inspect muffle for cracks. Inspect the thermocouple lead for breakage.

   c. Monthly

      (1) Test meter for accuracy. If incorrect recalibrate.

8. Vacuum Porcelain Ovens

   a. Daily

      (1) Keep inside clean of debris. Keep oven at 400 degrees overnight.

   b. Weekly

      (1) Inspect muffle for cracks/breaks. Repair with cement if needed.

   c. Monthly

      (1) Test meter for accuracy. If incorrect, recalibrate.

9. Air Compressor

   a. Daily

      (1) Drain air receiver tank.

      (2) Secure nightly.

10. Central Suction

   a. Daily

      (1) Visually check for signs of effluence in turbine. If present notify repair immediately

      (2) Secure nightly

Minor Maintenance Petty Officer

1. Scope of work: Provide a level of maintenance beyond the operators requirements. Troubleshoot and provide preventive and other maintenance specifically to the dental unit and light.

2. Requirements: Must have attended Command minor maintenance course.

3. Responsibilities

a. Identify maintenance and repair problems.

b. Initiate 6700/4 and make log entry.

c. Make repairs if able or leave chit with log for repairman. Contact Repair if repairs are emergent in nature.